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ABSTRACT

The field of education has been slow to recognize the Total Quality Management (TQM) concept. This resistance may result from entrenched management styles characterized by hierarchical decision-making structures. TQM emphasizes management based on leadership instead of management by objective, command, and coercion. The TQM concept consists of five key elements: (1) customer focus; (2) systematic improvement of operations; (3) development of human resources; (4) long-term thinking; and (5) commitment to quality. These have been translated for use in education in ways that emphasize the end result of improving student performance. Indicators for the Forrest City, Arkansas, TQM program are academic achievement, employee satisfaction, student satisfaction, community involvement, community reception, and physical layout. If success for all students is not emphasized, TQM is not operational. A systems approach will help ensure continuous improvements, and a critical-path program is necessary for application of TQM given the many variables involved in the school system. There is insufficient evidence to assess the potential effectiveness of the TQM concept in the educational context, making the acquisition of more data from additional studies an important objective. (TEJ)

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EFFICIENCY VS. EFFECTIVENESS: CAN W. EDWARDS DEMING'S PRINCIPLES OF QUALITY MANAGEMENT BE APPLIED SUCCESSFULLY TO AMERICAN EDUCATION

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Introduction

Total Quality Management (TQM) is an abstract idea to many (1:1), who equated their knowledge of it to the purchasing of a Japanese product that is used in their homes, having a brand name such as Panasonic, Sony, or Hitachi, or used outside the home, having the familiar names of Toyota, Honda, Nissan, and Mitsubishi. But those who have heard know that the method by which Japanese manufacturing has reached such a high level of perfection has been attributed to an American, W. Edwards Deming, whose ideas about quality control were rejected by manufacturers in his native land as being unworkable or inapplicable.

Some American businesses, however, have recently conceded that the effect of the Japanese use of quality control has been so dramatic in improving Japanese products, which were once classified as cheap and inferior, that they have begun to utilize TQM themselves. By contrast, the field of education has been much slower to recognize the value of such an implementation. Of the 15,000 school districts in the United States, only a few, perhaps no more than 10, have actively begun the use of this method to effect a more excellent education. Indeed, the reference of the effort is not to reestablishing excellence but to initiate and eventually consummate reconstruction of the processes of education while greatly improving the product of education, the student.

Perhaps resistance to the use of TQM can be laid to the entrenched management styles that are taught as the most effective methods of administering the field of education. Planning (P), organizing (O), motivating (M), and controlling (C) are traditional concepts for managers, be they business-persons or school superintendents. This is more often a stepwise, hierarchical, authoritarian format that gives the central role to the highest ranking officials and lesser roles to those found on lower rungs of the corporate or organizational ladders. Earlier ascriptions

to administrators included such tasks as delegating (D), ordering (O), reporting (R), budgeting (B), managing (M), and supervising (S).

If TQM is a restructuring process it should take us from what we are to what we hope to be. Can its application now allow us to see the future or a glimpse of it, to surmise it, or imagine it? Were the thoughts of Brameld based on new ideas of administration or just on a cessation of schooling as he knew it and a restarting of a tired engine with some new parts and no retooling? The analogy is apt: when a heretofore non-existing model is to be created, manufacturers build a new plant with new forms of mechanization based on new ideas and constructs, such as in the case of the Edsel and Saturn automobiles. When a renewal with few changes is desired, some revamping takes place, but the model basically remains as it was, as with the Volkswagon Beetle.

Applying TQM to Schooling

What would it be like to have schools apply TQM? What kinds of buildings, curricula, courses, majors, and personnel would we need and see? Indeed, what would the student, the primary beneficiary be like: more highly motivated to learn, more highly educated, more accomplished in personal objectives, more committed to the process of lifelong learning, more adapted to life after K-12 or a postsecondary experience? How different will it all be? What shall we see, hear about, and experience?

Is TQM the tool for restructuring schooling and on all levels? Is it an apt substitute for the suggestions by reconstructionists or ideas they generate? Would change be primarily for economic, cultural, sociological, or political reasons and causes? Is TQM linked to a philosophy or an educational viewpoint, or to an educational practice? Will it produce what is desired? Is what is desired what TQM

will produce? In other words, will it achieve the results predicted - or is it another kind of control mechanism?

If TQM is a "concept best suited to the assembly-line production of better consumer goods " (2:1), will it offer to schools the solution to social problems such as AIDS, teenage pregnancy, vandalism, and chemical abuse that plague our nation? If it can be proved to be effective, might the federal government fund school districts for the implementation of TQM along with existing legislatively-underwritten solutions?

How does TQM make a difference in the schools? What is anticipated? At this time, it is largely untried so it is difficult at this time to state conclusions that have been established. Whether or not TQM methodology will produce significant results over conventional administrative techniques is being investigated on only a limited basis. Undoubtedly, time and effort will be needed to make a claim of significance for this presently-starting alternative to traditional school management.

What is TQM?

Described, TQM is singular management based on leadership as contrasted with management by objective, command, or coercion (1:1). It demands a commitment to continual improvement (3:1), and its purpose is to reconstruct, not to reestablish, excellence. By what measure were the schools in the United States deemed to be excellent in comparison with each other, or in comparison with Japanese or German institutions? Is it not essential for followers of Deming to declare that they want to reestablish former standards, for they believe in and practice quality control? What is wanted is not outstanding rankings in curricular areas but highly-trained and effective students, adaptable persons capable of a strong measure of self-direction, independence, and interdependence.

Key Points and Application

TQM consists of five key points: (1) customer focus, (2) systematic improvement of operations, (3) development of human resources, (4) long-term thinking, and (5) commitment to quality (3:26). It includes 14 points related to education. It has been in vogue long enough for the formation of the American Society for Quality Control with local chapters that are characterized by organization, programming, a history, inculcation and indoctrination, rhetoric, and institutionalizing of the process (4:1). Yearly, October is National Quality Month.

Deming's points have been translated for an educational system thusly (2:19-23): (1) "all students would experience success in achieving exit outcomes, given time, opportunity, and support to become responsible, knowledgeable, and contributing members of a global society"; (2) "movement to an outcome-based, decision-making model where all student would learn" represents a new philosophy; (3) "high level performance levels. . . from the start . . . to apply what is known about learning toward success for all"; (4) "working with suppliers . . . . to improve the odds of getting students who are ready to learn. . . need to assure all students are promoted with skills and attitudes necessary for success at the higher levels of outcomes identified"; (5) use of the Plan-D Check-Art cycle in problem-solving situations; (6) long-term commitment to staff and organizational development; (7) leadership that helps staff in understanding their fit into the system; (8) creation of an atmosphere that eliminates fear in which "learning never ceases to be a goal"; (9) breaking down barriers by building a team concept based on the knowledge of how a successful team works"; (10) "eliminating slogans and establishing training" to increase the probability that "all students will learn and at a significantly higher level than current practices achieve"; (11) "an increased level of autonomy and flexibility at the school building level in order to implement adaptive practices"; (12) "look at every management system or operating procedure and assess whether it

supports or inhibits improvement"; (13) "institute a vigorous program of education and self-improvement"; and (14) "put everyone in the organization to work to accomplish the transformation . . . staff and teams . . . assessing the effectiveness of their actions to meet the district mission of all students learning."

Indicators for the Forrest City, Arkansas, TQM program are: (1) academic achievement, including GPA's, and number of graduates in postsecondary education and completing it; (2) employee satisfaction, including salaries, longevity, and grievances; (3) student satisfaction, including attendance and participation in extra-curricular activities; (4) community involvement, including number of volunteers and speaking engagements; (5) community reception, including attendance at school functions and community/civic group involvement in school programs; and (6) physical layout, including transportation and supplies and equipment (5:C1). According to McKenzie, "Total quality management is a customer-focused, team-oriented, statistics-based process that fosters continuous improvement in companies and other organizations that use it." (5:C1).

Nomenclature for TQM involves process, satisfaction, perception, improvement, redesign, cooperation, and rearrangement. Older terms in use are inservice, evaluation, placement, maintenance, and assessment. New labels are school team, the school as internal customer, and adopters as external customer (6:2). School districts invent terms that apply to their new situations but maintain enough in-use terms whereby to communicate with their publics and keep them informed of progress measures.

The goal is on the end product, not on improving the teaching that educates the student. If success for all students is not a part of the emphasis, then Deming's plan is not operational. Some of his points illustrate this: (1) leaving off grading and testing, (2) sorting students along a normal curve, and (3) abolishing the grouping of students homogeneously (3:20).

The application of TQM is calculated to result in efficiency which, when applied to business is most easily seen in savings, as in the case of Schering-Plough. This manufacturer of health care products saved $200,000 on a solution by a team formed under the aegis of quality control (7:1). Operating since 1988, several teams have identified more than $1.5 million worth of improvements, ranging from anything they could find to improve to saving the time of employees, reducing waste, and initiating the recycling of cartons for their manufacturing unit. TQM is designed as a continuous process with teams forming, dissolving, and reforming, and with members working together without consideration of title.

Philosophical Basis

A philosophical base for this concept seems to be the worth of the individual, who is considered to be in the process of becoming involved in decision making and implications resulting therefrom. When the student is the recipient of the purposes of schooling, policies change the focus of the efforts that will meet their needs. Indeed, all resources are pointedly directed to the improvement of student success rates and individual satisfaction.

Building in quality control implies that the administration of schools is based on previously-held concepts that need adjustment or replacement. Quality management does not mean totally starting over but connotes amelioration of conditions that do not support successful experiences for students. Building in means adding to or strengthening existing constructive measures but also implies weeding out or minimizing practices that do not produce success for all enrolled in schools.

A systems approach will aid in guaranteeing positive, continuous results. A critical path program is necessary for application of TQM because of the multitude of variables involved in the school system. Their pressure needs to be recognized in

order to assure that they are dealt with on a continuous basis. Loss of attention to variables will most assuredly prevent success to be achieved. How can education be improved so as to be rewarding to all is a research question that will need large databases from which potential and partial answers can be retrieved. Small-site research can add to the knowledge base and will encourage others to duplicate project methodology.

Efficiency vs. Effectiveness

Will such attention to the way TQM is to be performed stifle initiative and innovation about it? Is it a prescribed methodology or a framework whereby visionary activity can take place? Is it subject to universal application, to universal definition, to sameness of meaning? How much flexibility is there within the system? If it is meant to inspire creativity, will there be an end to it? If not, what will be some of the intermediary results? What can we imagine will be the school of the future?

In creating newness, will the sense of creativity be stifled? Can constant creativeness be called creativity? When does it cease to be if it is monotonous? Will this type of creativity become habitual, and, therefore, common? If we all convert to TQM, what is left? If we all subscribe, how will we be challenged? Are we at Walden II again?

Can a school survive if it responds only to its customers, be they child, parent, teacher, or administrator? Is it not the perogative of outsiders to render opinions, influence decisions, and threaten withdrawal of support if their ideas about the purposes of schooling are not heard? A taxpayer without a child in school has as much right to comment and make suggestions about schooling as does any other person. What will business say, that schools should not be businesses, that they are intruding in our domain of management? Indeed, if school administration is no

more than TQM, why have colleges of education training managers when the colleges of business already do this? Would the adoption of TQM by school districts allow colleges of education to concentrate on teacher education, excluding management?

What if burnout takes place for school employees who have not a sustained interest in decision making leading to the solution of school problems? Is every teacher interested in school management? When does the teacher become a managerial team member and cease to be a preparer for class, a resource for curriculum development, a facilitator? How much time outside the classroom can a school district count on from a teacher involved in management?

Another question arises: What is the reward system and how is it created, interpreted, and managed? Are contributions to decision making, such as ideas and analyses, counted toward rewards, even though the most reward should be in seeing a student achieve success? Will school boards agree with suggestions to revamp the typical evaluation system? How will decisions in this area affect morale? Will lack of reward or failure to reward be influential in sustaining involvement for the team member and players in TQM?

Conclusions

Conclusions center around the infancy of the movement. There is not enough evidence to know how effective this management system is. Will time tell? Only if there are numerous school districts implementing TQM.

Applicability will be determined on a broader base than now exists. In the meantime, methodology can be improved, data can be gathered, and ideas about conclusions and implications can be shared. "TQM at any cost" is a slogan that should probably not be espoused. TQM for TQM's sake is not a rallying cry for embattled superintendents. At this time, it is not a panacea for the woes of

schooling. Sharing about successes should be maintained, but giving TQM the trappings it does not deserve, publicity that is misleading, and support for unsubstantiation of claims for efficiency and effectiveness is falsification. We are gathering data from one study; let us initiate another and then another until we have enough data to draw defensible conclusions. Perhaps committed reconstructonists will use TQM as a function of their ideas and monitor change through the application of this administrative technique to its conclusions.

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